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Listing of Claims

The following listing of claims will replace all prior versions, and listings, of claims in the subject application:

1. (currently amended) An X-ray tube device having comprising: an anode rotation mechanism for rotating an anode with a motor; and ~~and further comprising~~: an anode rotation number detecting means for detecting the rotation number of the anode on the basis of information of voltage and current or of current only related to a stator coil for generating a rotating magnetic field to rotate the motor, wherein the anode rotation number detecting means includes: voltage detecting means for detecting voltage of the stator coil; at least one current detecting means for detecting current flowing through the stator coil; impedance calculating means for calculating impedance of the anode rotation mechanism using an output of the voltage detecting means and the current detecting means; initial impedance storing means for storing an impedance at the start of anode rotation calculated by the impedance calculating means; impedance ratio calculating means for calculating a ratio between the initial impedance and a present impedance calculated by the impedance calculating means; and means for detecting an event that the rotation number of the anode is a predetermined rotation number by judging the impedance ratio calculated by the impedance ratio calculating means is reached to a predetermined value.

Claims 2-3 (canceled).

4. (original) An X-ray tube device according to claim 1, wherein the anode rotation

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number detecting means includes: at least one current detecting means for detecting current flowing through the stator coil; preset stator coil current storing means for storing a stator coil current corresponding to a preset rotation number of the anode; and means for detecting an event that an present stator coil current is around the predetermined stator coil current by comparing the stored stator coil current and the stator coil current obtained by the current detecting means.

5. (original) An X-ray tube device according to claim 1, wherein the anode rotation number detecting means include: at least one current detecting means for detecting current flowing through the stator coil; initial stator coil current storing means for storing a stator coil current at the start of anode rotation detected by the current detecting means; stator coil current ratio calculating means for calculating a ratio between the initial stator coil current and the present stator coil current detected by the current detecting means; and means for detecting an event that the rotation number of the anode is the predetermined rotation number using the stator coil current ratio obtained by the stator coil current ratio calculating means.

6. (currently amended) An X-ray tube device according to claim ~~2 or 3~~ 1, wherein among voltage and current information related to the stator coil and input into the impedance calculating means, the voltage information is a target value of the voltage.

7. (currently amended) An X-ray generating device comprising: an X-ray tube device having an anode rotation mechanism; an X-ray high voltage generating device for generating a DC high voltage to be applied between an anode and a cathode of the X-ray tube device;

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and X-ray radiation start commanding means for receiving output voltage of the X-ray high voltage generating device between the anode and the cathode of the X-ray tube device when the rotation number of the anode reaches a predetermined number and outputting a command to generate X-ray from the X-ray tube device, wherein the X-ray tube device is one according to ~~any of claim 1 to 5~~ claim 1.

8. (original) An X-ray generating device comprising: an X-ray tube device having an anode rotation mechanism; an X-ray high voltage generating device for generating a high voltage to be applied between an anode and a cathode of the X-ray tube device; and an X-ray radiation start commanding means for receiving output voltage of the X-ray high voltage generating device between the anode and the cathode of the X-ray tube device when the rotation number of the anode reaches a predetermined number and a outputting command to generate X-rays from the X-ray tube device, wherein the X-ray tube device is one according to claim 6.

9. (original) An X-ray imaging apparatus using an X-ray generating device according to claim 7.

10. (original) An X-ray imaging apparatus using an X-ray generating device according to claim 8.

Claims 11-20 (canceled).